

ENTERED
see page 6



OIIPE

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/09/894,912A

TIME: 11:29:05

Input Set : A:\37260ARevseq.txt

Output Set: N:\CRF3\05222002\I894912A.raw

5 <110> APPLICANT: Tang et al.
 8 <120> TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL STEM CELL GROWTH
 9 FACTOR-LIKE POLYPEPTIDES AND POLYNUCLEOTIDES
 12 <130> FILE REFERENCE: 28110/37260A
 C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/894,912A
 C--> 15 <141> CURRENT FILING DATE: 2002-05-10
 17 <150> PRIOR APPLICATION NUMBER: To be assigned
 18 <151> PRIOR FILING DATE: 2001-04-05
 20 <150> PRIOR APPLICATION NUMBER: 60/266,614
 21 <151> PRIOR FILING DATE: 2001-02-05
 23 <150> PRIOR APPLICATION NUMBER: 60/215,733
 24 <151> PRIOR FILING DATE: 2000-06-28
 26 <150> PRIOR APPLICATION NUMBER: 09/757,562
 27 <151> PRIOR FILING DATE: 2001-01-09
 29 <150> PRIOR APPLICATION NUMBER: 09/543,774
 30 <151> PRIOR FILING DATE: 2000-04-05
 33 <160> NUMBER OF SEQ ID NOS: 48
 35 <170> SOFTWARE: PatentIn version 3.0
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 40 <211> LENGTH: 301
 41 <212> TYPE: DNA
 42 <213> ORGANISM: Homo sapiens
 44 <400> SEQUENCE: 1
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 49 gagaaaacaa acagcagcag aagaagcgaa aagtccaaga taaacagaaa tcggtatcag 180
 51 tcagcactgt aactagagg gttccatgag attattgtag actcatgatg ctgctatctc 240
 53 aaccagatgc ccaggacagg tgctctagcc attaggacca caaatggaca tgtcagttat 300
 55 t 301
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 59 <211> LENGTH: 392
 60 <212> TYPE: DNA
 61 <213> ORGANISM: Homo sapiens
 63 <400> SEQUENCE: 2
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 66 tttcaacaaa gattttctgca caaaatgtaa aagtggattt tacttacacc ttggaaagtg 120
 68 ccttgacaat tgcccagaag ggttggaagc caacaacat actatggagt gtgtcagtat 180
 70 tgtgcactgt gaggtcagtg aatggaatcc ttggagtcca tgcacgaaga agggaaaaac 240
 72 atgtggcttc aaaagagggg ctgaaacacg ggtccgagaa ataatacagc atccttcagc 300
 74 aaagggtaac ctatgtcccc caacaaatga gacaagaaag tgtacagtgc aaaggaagaa 360
 76 gtgtcagaag ggagaacgag gaaaataagg ag 392
 79 <210> SEQ ID NO: 3
 80 <211> LENGTH: 475

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96 aagaagcaat acctgacagc ggaagtctgg aatggagcaa agaaatocca gagcaacgag      180
98 aaaacaaaca gcagcagaag aagcgaaaag tccaagataa acagaaatcg gtatcagtca      240
100 gcaactgtaca ctagagggtt ccatgagatt attgtagact catgatgctg ctatctcaac      300
102 cagatgcccc ggacaggtgc tctagccatt aggaccacaa atggacatgt cagttattgc      360
104 tctgtctaaa caacattccc agtagttgct atattcttca tacaagcata gttacaaca      420
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115 <221> NAME/KEY: misc_feature
117 <222> LOCATION: (1)..(473)
118 <223> OTHER INFORMATION: n = A, T, G, or C
121 <400> SEQUENCE: 4
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124 aaaaaaggaa gggagaggaa aagaaaaaaa cctaataaag gagaaagtaa agaagcaata      120
126 cctgacagca aaagtctgga atccagcaga gaaatccag agcaacgaga aaacaaacag      180
128 cagcagaaga agcgaaaagt ccaagataaa cagaaatcgg tatcagtcag cactgtacac      240
130 tagagggttc catgagatta ttgtagactc atgatgctgc tatctcaacc agatgcccag      300
132 gacaggtgct ctagccatta ggaccacaaa tggacatgtc agttattgct ctgtctaaac      360
134 aacattccca gtagttgcta tattcttcat acaagcatag ttaacaacaa agagccaaaa      420
136 gatcaaagaa gggatacttt cagatggttg tcttgtgtgc ttctctgcat ttt      473
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141 <212> TYPE: DNA
142 <213> ORGANISM: Homo sapiens
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146 <221> NAME/KEY: misc_feature
148 <222> LOCATION: (1)..(462)
149 <223> OTHER INFORMATION: n = A, T, G, or C
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157 ctggaatcca tcaaagaaat cccatatcaa cgagaaaaca gacagcagca caaaaagcga      180
159 aaagtccaag ataaacagaa atcggatatca gtcagcactg tacactagag ggttccatga      240
161 gattattgta gactcatgat gctgctatct caaccagatg cccaggacag gtgctctatc      300
163 cattacgacc acaaatggac atgtcagtta ttgctctgtc taaacaacat tcccagtagt      360
165 tgctatattc ttcatacaag catagttaac aacaaagagc caaaagatca aagaagggat      420
167 actttcagat ggttgtcttg tgtgcttctc tgcattttta aa      462

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176 <400> SEQUENCE: 6
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179 aaaatgtaaa agtggatttt acttacacct tggaaagtgc cttgacaatt gcccagaagg      120
181 gttggaagcc aacaaccata ctatggagtg tgtcagtatt gtgcactgtg aggtcagtga      180
183 atggaatcct tggagtccat gcacgaagaa gggaaaaaca tgtggcttca aaagagggac      240
185 tgaaacacgg gtccgagaaa taatacagca tccttcagca aagggtaacc tatgtccccc      300
187 aacaaatgag acaagaaagt gtacagtgc aaggaagaag tgtcagaagg gagaacgagg      360
189 aaaaaaagga agggagagga aaag                                     384
192 <210> SEQ ID NO: 7
193 <211> LENGTH: 390
194 <212> TYPE: DNA
195 <213> ORGANISM: Homo sapiens
197 <220> FEATURE:
198 <221> NAME/KEY: misc_feature
200 <222> LOCATION: (1)..(390)
201 <223> OTHER INFORMATION: n = A, T, G, or C
204 <400> SEQUENCE: 7
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207 ctttctcctt tattaggttt ttttcttttc ctctcccttc ctttttttcc tegtctctcc      120
209 ttctgacact tcttcttttg cactgtacac ttcttgtct catttggttg gggacatagg      180
211 ttaccctttg ctgaaggatg ctgtattatt tctcggaccc gtgtttcagt cctcttttg      240
213 aagccacatg tttttccctt ctctgtgat ggactccaag gattccattc actgacctca      300
215 cagtgcacaa tactgacaca ctccatagta tggttgttgg cttccaaccc ttctgggcaa      360
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221 <211> LENGTH: 1345
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223 <213> ORGANISM: Homo sapiens
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
228 <222> LOCATION: (321)..(1235)
229 <223> OTHER INFORMATION: similar to gi4519541 in the genpept database release 114,
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230 h FASTXY3.3t00, default parameter
233 <400> SEQUENCE: 8
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238 cgccccactt cgcttgccat cacagcacgc ctatcggatg tgagaggaga agtcccgtg      180
240 ctcgggcact gtctatatac gcctaacacc tacatatatt ttaaaaaacat taaatataat      240
242 taacaatcaa aagaaagagg agaaaggaag ggaagcatta ctgggttact atgcacttgc      300
244 gactgatttc ttggcttttt atcattttga actttatgga atacatcggc agccaaaacg      360
246 cctcccgggg aaggcgccag cgaagaatgc atcctaacgt tagtcaaggc tgccaaggag      420
248 gctgtgcaac atgctcagat tacaatggat gtttgtcatg taagcccaga ctattttttg      480
250 ctctggaaaag aattggcatg aagcagattg gagtatgtct catcttcatg tccaagtgga      540
252 tattatggaa ctogatatcc agatataaat aatgtgtaca aaatgcaaag ctgactgtga      600
254 tacctgtttc aacaaaaatt tctgcacaaa atgtaaaagt ggattttact tacaccttgg      660

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256 aaagtgcctt gacaattgcc cagaagggtt ggaagccaac aaccatacta tggagtgtgt 720
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260 aaaaacatgt ggcttcaaaa gagggactga aacacgggtc cgagaaataa tacagcatcc 840
262 ttcagcaaaag ggtaacctat gtcccccaac aaatgagaca agaaagtgtg cagtgc aaag 900
264 gaagaagtgt cagaaggagg aacgaggaaa aaaaggaagg gagaggaaaa gaaaaaaacc 960
266 taataaagga gaaagtaaa aagcaatacc tgacagcaaa agtctggaat ccagcaaaga 1020
268 aatcccagag caacgagaaa acaaacagca gcagaagaag cgaaaagtcc aagataaaca 1080
270 gaaatcggtg tcagtcagca ctgtacacta gagggttcca tgagattatt gtgactcat 1140
272 gatgctgcta tctcaaccag atgcccagga cagggtgctct agccattagg accacaaatg 1200
274 gacatgtcag ttattgtctt gtctaaacaa cattcccagt agttgctata ttcttcatac 1260
276 aagcatagtt aacaacaaa agccaaaaga tcaaagaagg gatactttca gatggttgtc 1320
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281 <210> SEQ ID NO: 9
282 <211> LENGTH: 1343
283 <212> TYPE: DNA
284 <213> ORGANISM: Homo sapiens
286 <220> FEATURE:
287 <221> NAME/KEY: CDS
289 <222> LOCATION: (291)..(1109)
291 <400> SEQUENCE: 9
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296 cgccccactt cgcttgccat cacagcacgc ctatcggatg tgagaggaga agtcccgtg 180
298 ctcgggcact gtctatatac gcctaacacc tacatatatt ttaaaaacat taaatataat 240
300 taacaatcaa aagaaaggag agaaaggaag ggaagcatta ctgggttact atg cac 296
301 Met His
302 1
304 ttg cga ctg att tct tgg ctt ttt atc att ttg aac ttt atg gaa tac 344
305 Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met Glu Tyr
306 5 10 15
307 atc ggc agc caa aac gcc tcc cgg gga agg cgc cag cga aga atg cat 392
308 Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg Met His
309 20 25 30
311 cct aac gtt agt caa ggc tgc caa gga ggc tgt gca aca tgc tca gat 440
312 Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys Ser Asp
313 35 40 45 50
315 tac aat gga tgt ttg tca tgt aag ccc aga cta ttt ttt gct ctg gaa 488
316 Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala Leu Glu
317 55 60 65
319 aga att ggc atg aag cag att gga gta tgt ctc tct tca tgt cca agt 536
320 Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys Pro Ser
321 70 75 80
323 gga tat tat gga act cga tat cca gat ata aat aag tgt aca aaa tgc 584
324 Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr Lys Cys
325 85 90 95
327 aaa gct gac tgt gat acc tgt ttc aac aaa aat ttc tgc aca aaa tgt 632
328 Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe Cys Thr Lys Cys
329 100 105 110
331 aaa agt gga ttt tac tta cac ctt gga aag tgc ctt gac aat tgc cca 680

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332 Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu Asp Asn Cys Pro
333 115 120 125 130
335 gaa ggg ttg gaa gcc aac aac cat act atg gag tgt gtc agt att gtg 728
336 Glu Gly Leu Glu Ala Asn Asn His Thr Met Glu Cys Val Ser Ile Val
337 135 140 145
339 cac tgt gag gtc agt gaa tgg aat cct tgg agt cca tgc acg aag aag 776
340 His Cys Glu Val Ser Glu Trp Asn Pro Trp Ser Pro Cys Thr Lys Lys
341 150 155 160
343 gga aaa aca tgt ggc ttc aaa aga ggg act gaa aca cgg gtc cga gaa 824
344 Gly Lys Thr Cys Gly Phe Lys Arg Gly Thr Glu Thr Arg Val Arg Glu
345 165 170 175
347 ata ata cag cat cct tca gca aag ggt aac cta tgt ccc cca aca aat 872
348 Ile Ile Gln His Pro Ser Ala Lys Gly Asn Leu Cys Pro Pro Thr Asn
349 180 185 190
351 gag aca aga aag tgt aca gtg caa agg aag aag tgt cag aag gga gaa 920
352 Glu Thr Arg Lys Cys Thr Val Gln Arg Lys Lys Cys Gln Lys Gly Glu
353 195 200 205 210
355 cga gga aaa aaa gga agg gag agg aaa aga aaa aaa cct aat aaa gga 968
356 Arg Gly Lys Lys Gly Arg Glu Arg Lys Arg Lys Lys Pro Asn Lys Gly
357 215 220 225
359 gaa agt aaa gaa gca ata cct gac agc aaa agt ctg gaa tcc agc aaa 1016
360 Glu Ser Lys Glu Ala Ile Pro Asp Ser Lys Ser Leu Glu Ser Ser Lys
361 230 235 240
363 gaa atc cca gag caa cga gaa aac aaa cag cag cag aag aag cga aaa 1064
364 Glu Ile Pro Glu Gln Arg Glu Asn Lys Gln Gln Gln Lys Lys Arg Lys
365 245 250 255
368 gtc caa gat aaa cag aaa tcg gta tca gtc agc act gta cac tag 1109
369 Val Gln Asp Lys Gln Lys Ser Val Ser Val Ser Thr Val His
370 260 265 270
372 aggggtccat gagattattg tagactcatg atgtgtctat ctcaaccaga tgcccaggac 1169
374 aggtgtctcta gccattagga ccacaaatgg acatgtcagt tattgtcttg tctaaacaac 1229
376 attcccagta gttgtctatat tcttcataca agcatagtta acaacaaaga gccaaaagat 1289
378 caaagaaggg atactttcag atgggtgtct tgtgtgcttc tctgcatttt taaa 1343
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382 <211> LENGTH: 272
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384 <213> ORGANISM: Homo sapiens
387 <400> SEQUENCE: 10
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390 1 5 10 15
393 Glu Tyr Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg
394 20 25 30
397 Met His Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys
398 35 40 45
401 Ser Asp Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala
402 50 55 60
405 Leu Glu Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys
406 65 70 75 80
409 Pro Ser Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/894,912A

DATE: 05/22/2002
TIME: 11:29:06

Input Set : A:\37260Arevseq.txt
Output Set: N:\CRF3\05222002\I894912A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,28,49,52,53,56,57,60,69,475

Seq#:4; N Pos. 7,8,9,10,14,21

Seq#:5; N Pos. 8,9,10,11,33,36,38,41,43

Seq#:7; N Pos. 390

Seq#:31; N Pos. 2367

VERIFICATION SUMMARY

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L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:420
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360
L:1205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:2307